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**Jamison et al.**

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(54) **CLIP ON MANIFOLD HEAT EXCHANGER**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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**Related U.S. Application Data**

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(57) **ABSTRACT**

A plate and fin type heat exchanger is disclosed which can be made in any convenient size with minimum tooling required. The heat exchanger is made from a plurality of stacked plate pairs having raised peripheral edge portions to define flow channels inside the plate pairs. The plates of the plate pairs are formed with offset, diverging end flanges that space the plate pairs apart. A U-shaped channel envelops the plate end flanges to form part of a manifold at each end of the plate pairs. End caps or plates close the open ends of the U-shaped channels to complete the manifolds, and inlet and outlet openings are formed in the manifolds as desired to complete the heat exchanger.

**22 Claims, 9 Drawing Sheets**

